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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,845	02/27/2001	Christoph Herrmann	PHD 99,088	5206
24737	7590	01/05/2004	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			AHN, SAM K	
			ART UNIT	PAPER NUMBER
			2634	
			DATE MAILED: 01/05/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/763,845

Applicant(s)

HERRMANN ET AL.

Examiner

Sam K. Ahn

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 February 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,4 .                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. Fig.1~6 need to have descriptive label, in conformance with 37 CFR 1.84(n) and 1.84(o). For example, a descriptive label of "demodulator " should be inserted into Fig. 4 to properly describe element (19).

### ***Specification***

2. The abstract of the disclosure is objected to because it is not necessary to insert "Fig.1" at the bottom of the abstract. Correction is required. See MPEP § 608.01(b).
3. For the formality of the application under the present office practice, applicant(s) is required to replace "Claims" with "I or We Claim", "The Invention Claimed Is" (or the equivalent) before the Claims part of the specification of the instant application. See MPEP 608.01(m).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the wish" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 1, line 8, recites "--- after the detection of a signaling sequence ---". Is the signaling sequence detected after the evolving from a received and correlated step?

In claim 1, 12, line 9, 6 recite "a contention channel" while line 6 of claim 1 already recites "a contention channel". It is unclear whether the contention channel is being referred to the previously recited contention channel or is stating a different contention channel.

In claims 1, 4, 6, 7, 9 and 10, line 8, 4, 3, 3, 3, 3, respectively, recite "a signaling sequence". It is unclear whether the sequence is the same or different sequence from the sequence recited in line 5 of claim 1.

In claim 2 and 5, line 6 and 4, respectively, recites "at least one contention channel", and "one or more contention channels", respectively, while claim 1, line 6, recites only "a contention channel". It is unclear and indefinite as to how the

data packets are transmitted over at least one contention channel when only one is previously recited.

In claim 2, line 5, recites "and/or". This renders the scope of the claim unclear and indefinite.

In claims 2, 8 and 12 lines 4-5, 5 and 5, respectively, recite "a provision message". It is unclear whether the message is the same or different message as the message recited in line 9 of claim 1.

In claims 2, 4, 6, 7, 8, 9, 10 in lines 3, respectively, recite "a terminal". The preamble calls for "a plurality of terminals". It is unclear and indefinite as to which terminal is provided to function the further limitations.

In claim 3, lines 3-4, recites "at least one pulse", while claim 1 recites only a pulse. This renders the scope of the claim to be unclear and indefinite.

Claim 8, line 4, recites "--- determined time slots ---". It is unclear and indefinite as to where and how the time slots were determined.

In claims 11 and 13, line 8 and 7, respectively, recite "a signaling sequence". It is unclear whether the sequence is the same sequence as the sequence recited in line 5, 4 of claim 11, 13, respectively.

In claim 12, line 4, recites "the terminal". It is unclear as to which terminal is being referred to when the preamble of the claim recites "further terminals", in line 2.

Claim 12 recites the limitation "the assigned base station" in line 6. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-5 and 8-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Kanterakis et al. ('056).

Regarding claims 1, 11 and 12, Kanterakis teaches a method and apparatus of a wireless network comprising at least a base station and a plurality of assigned terminals (see Fig.1) for exchanging user data and control data (see Fig.7) over a contention channel wherein Kanterakis teaches a common-packet channel is a contention based, therefore teaches a contention channel. (note col.2, lines 56-63) Further, Kanterakis teaches in the base station a device for correlating by matched filter (315 in Fig.3) a signaling sequence transmitted by at least one terminal to indicate the wish to use a contention channel (access-burst signal, note col.5, lines 63-67) and for detecting the pulse evolved from a received and correlated signaling sequence (see Fig.6 and note col.6, lines 37-46). And further, in that the base station, after the detection of the signaling sequence (access-burst signal), is provided for transmitting a provision message (ACK signal, note col.6, lines 47-52) over a contention channel (common-synchronization channel) to be used by the assigned terminals.

Regarding claims 3 and 13, Kanterakis teaches all subject matter claimed, as explained above. Kanterakis further teaches correlating the received signal and further detecting the peak evolved, (note col.6, lines 1-19) wherein the base station detects the power level of the signal to determine signaling sequence comprising pilot signals.

Regarding claim 2, Kanterakis teaches all subject matter claimed, as applied to claim 1. Kanterakis further teaches a terminal provided for transmitting a signaling sequence during a certain time slot (note col.11, lines 40-57) of a transmitting-end reference frame, and after receiving a provision message (ACK signal) from the base station, for transmitting a terminal identification data packets over at least one contention channel. (note col.9, lines 31-45)

Regarding claim 4, Kanterakis teaches all subject matter claimed, as applied to claim 1. Kanterakis further teaches a terminal provided for transmitting a Gold, Kasami or Golay sequence (col.8, lines 24-40) as a signaling sequence during a specific time slot of a transmitting-end reference frame. (note col.11, lines 40-57)

Regarding claim 5, Kanterakis teaches all subject matter claimed, as applied to claim 1. As explained previously, Kanterakis teaches the further limitation claimed. (ACK signal, note col.6, lines 47-52)

Regarding claim 8, Kanterakis teaches all subject matter claimed, as applied to claim 2. Kanterakis further teaches a terminal provided for transmitting a signaling sequence during one of various determined time slots (note col.11, lines 40-57) of a transmitting-end reference frame, and after receiving a provision message (ACK signal) from the base station, for transmitting a terminal identification data packets over at least one contention channel. (note col.9, lines



31-45) Furthermore, it is inherent that the terminal transmits the terminal identification only when the provision message indicates the respective time slot. As previously explained, the provision message includes the time slot information and therefore, transmitting the terminal identification would only occur after the reception of the provision message.

Regarding claim 9, Kanterakis teaches all subject matter claimed, as applied to claim 1. Kanterakis also teaches transmission of a signaling sequence transmitted by plurality of terminals communicating with a base station. (note col.1, lines 30-43) Furthermore, it is inherent that the signaling sequence transmitted by the terminal is part of a multiplicity of signaling sequence to be used in a radio cell, since there are more than one terminals communicating with the base station requesting for a contention channel each using a different signaling sequence.

Regarding claim 10, Kanterakis teaches all subject matter claimed, as applied to claim 1. Kanterakis further teaches a terminal selecting a signaling sequence to request for one or a plurality of contention channel (see Fig.4, and note col.6, lines 25-35) and further, the data rates are different from the base station. (note col.9, lines 54-61 wherein the terminal informs the base station of the data rate, which may be different from the rate of base station. (note col.9, lines 54-61)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanterakis ('056) in view of Jung et al. ('807).

Regarding claim 6, Kanterakis teaches all subject matter claimed, as applied to claim 1. Kanterakis teaches retransmission of signaling sequence, however, does not teach retransmission within a predefined period of time when no acknowledgement of the reception of the signaling sequence. Jung teaches, in the same field of endeavor, communication between base station and terminal over a contention channel wherein the terminal retransmits signaling sequence within a predefined period of time when no acknowledgement of the reception of the signaling sequence. (note col.1, lines 37-46) Therefore, it would have been obvious to one skilled in the art at the time of invention to implement Jung's teaching of retransmission when no acknowledgement has been received since the terminal cannot wait for too long period of time, nor could terminal retransmit when base station has already received the signaling sequence, as it may be an unnecessary transmission. For the purpose of designing an efficient system, one

skilled in the art may implement as such wherein the terminal waits for a predefined period of time before retransmitting.

Regarding claim 7, Kanterakis teaches all subject matter claimed, as applied to claim 1. Kanterakis further teaches increasing energy or power level for transmission. (note col.6, lines 1-19) However, Kanterakis does not explicitly disclose increase of transmission energy or power level to a maximum level within a predefined period of time when no acknowledgement of the reception of the signaling sequence has been received from the base station. Jung teaches this limitation. (note col.2, lines 4-10) Therefore, it would have been obvious to one skilled in the art at the time of invention to implement as such for the purpose of properly transmitting the signaling sequence to the base station in situations where the terminal may be distant from the base station wherein increase of power level is needed in order for the base station to receive the sequence and further resulting in reception of acknowledgement of reception of signaling sequence by the terminal.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wright et al. teach handsets requesting a base station for a contention channel and a reservation channel.

Narvinger teaches a matched filter and a peak detector in a base station.

Chuah et al. teach retransmission based on a priority.

Dahlman et al. teach reception of signaling sequence with a matched filter and a peak detector and further having a energy level detector.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Sam Ahn** whose telephone number is **(703) 305-0754**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Stephen Chin**, can be reached at **(703) 305-4714**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

**or faxed to:**

**(703) 872-9306**

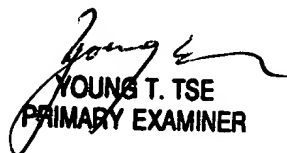
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Sam K. Ahn  
12/22/03

  
YOUNG T. TSE  
PRIMARY EXAMINER